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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,283	08/03/2001	Paul R. Johannessen		9705

7590
RINES AND RINES
81 North State Street
Concord, NH 03301

10/04/2004

EXAMINER

ELAHEE, MD S

ART UNIT	PAPER NUMBER
2645	8

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,283

Applicant(s)

JOHANNESSEN, PAUL R.

Examiner

Md S Elahee

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 02 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

a) Regarding claim 1, the word “saturable” in line 6 of the claim appears to be “saturable”. Appropriate correction is required.

Regarding claim 5, the word “saturable” in line 5 of the claim appears to be “saturable”. Appropriate correction is required.

b) The abstract of the disclosure is objected to because the word “saturable” used in the abstract appears to be “saturable”. Correction is required. See MPEP § 608.01(b).

c) The disclosure is objected to because of the following informalities: the word “saturable” used in line 7 of summary appears to be “saturable”.

Appropriate correction is required

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Reasons for Allowance

2. Claims 1-7 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1 and 5, the prior art Johannessen teaches a solid state switch which contains a passive-element bridge circuit to selectively lower the Q of the antenna circuit and thus prevent spurious oscillation therein. However, Johannessen fails to teach a solid state four-terminal rectifier bridge circuit with series-connected saturable and

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linear inductors and an SCR switch connected between the other pair of opposing terminals of the bridge circuit whereby the high-speed triggering of the SCR on effects corresponding high-speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation. The prior art is not modifiable to connect the SCR used in the bridge rectifier circuit of the prior art with series-connected saturable and linear inductors in order to provide the desired frequency modulation.

The prior art Farrar teaches a bridge rectifier for a submarine communication circuit to feed power. However, Farrar fails to teach a solid state four-terminal rectifier bridge circuit with series-connected saturable and linear inductors and an SCR switch connected between the other pair of opposing terminals of the bridge circuit whereby the high-speed triggering of the SCR on effects corresponding high-speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation. The prior art is not modifiable to connect other pair of opposing terminals of the bridge circuit with series-connected saturable and linear inductors and an SCR switch in order to provide the desired frequency modulation.

The prior art Curtis teaches a rectifier limiting bridge to perform a DC limiting function in order to protect circuitry associated with computer devices connected to the coaxial cable. However, Curtis fails to teach a solid state four-terminal rectifier bridge circuit with opposing pairs of bridge terminals connected with one pair of opposing terminals shunting the series connected inductance and capacitance; and series-connected saturable and linear inductors and an SCR switch connected between the other pair of opposing terminals of the bridge circuit, whereby the high-speed triggering of the SCR on

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effects corresponding high-speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation therein. The prior art is not modifiable to connect other pair of opposing terminals of the bridge circuit with series-connected saturable and linear inductors and an SCR switch in order to provide the desired frequency modulation.

Any comments considered necessary by applicant must be submitted no later than the payment the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

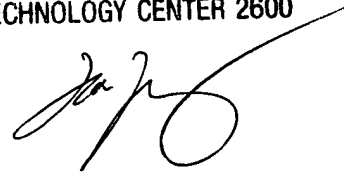
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M.F.,

MD SHAFIUL ALAM ELAHEE
June 28, 2004

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to be 'Fan Tsang', written over the printed name and title.